

REMARKS

Claims 1-18 are all the claims pending in the application. By this Amendment, Applicant amends claim 13 to further clarify the invention. The Amendment to claim 13 is clearly supported by the specification, *e.g.*, page 7 of the specification.

Summary of the Office Action

Applicant thanks the Examiner for another clear and thorough Office Action. In this Office Action, the Examiner rejected claims 17 and 18 under 35 U.S.C. § 102(b) and claims 1-16 under 35 U.S.C. § 103(a).

Claim Rejections under 35 U.S.C. § 102

Claims 17-18 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,712,867 to Yokey et al. (hereinafter “Yokey”). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider this rejection in view of the comments, which follow. Of these claims, only claim 17 is independent.

Independent claim 17, among a number of unique features, recites: “a processing time in the first communicating device...the processing time comprises a lapsed period of time from a moment when the first communicating device received the time information to a moment when the first communicating device is ready to transmit the received time information.” The Examiner asserts that claim 17 is directed to a network system for communicating accurate time information to a plurality of communicating devices, and is anticipated by Yokey. In particular, the Examiner asserts that Yokey’s propagation delay is equivalent to the processing time as set forth in claim 1 (see page 3 of the Office Action).

Applicant respectfully disagrees. Applicant has carefully studied Yokey's discussion of a propagation delay, which is not similar to the processing time in the first communication device from the receipt to the transmission as set forth in claim 17.

In the conventional systems, there is a problem of the time in various devices being inconsistent. In each device of the conventional systems, a time error exists. These time errors are corrected manually or by transmitting the received satellite time by a correcting host device such as a mobile station. When the correcting host device is used, a processing load of this machine may be high as it is forced to transmit the satellite time to the other devices in the system. As a result, the transmitted time may be inaccurate because the processing time of the host machine is not taken into account.

On the other hand, in the system set forth in claim 17, adjust the time by "a processing time in the first communicating device...the processing time comprises a lapsed period of time from a moment when the first communicating device received the time information to a moment when the first communicating device is ready to transmit the received time information."

Yokey, on the other hand, teaches a closed loop system in which a time-of-day message is sent from a time-of-arrival center 10 to a paging terminal 12 for transmission as a normal paging message. The time-of-day message is not given any special priority or handling by the paging terminal 12, and is simply queued up for transmission as any other paging message. Yokey teaches that the time-of-day paging message is assembled by the paging terminal 12 with other paging messages and sent to the paging transmitter 13. The paging transmitter 13 then transmits the time-of-day information packet just as it would any other paging message to the

wide geographic area served by that particular paging system. An accurate time-of-day device 14, such as a reverse paging unit or the like, receives the time-of-day messages and extrapolates the current time-of-day based on the history of the exact transmission times of the past time-of-day messages (Fig. 1; col. 4, line 55 to col. 5, line 7).

In particular, Yokev teaches that the generation of the time-of-day messages is performed at the time-of-arrival (TOA) center 10, which receives and records the exact transmission times of the time-of-day messages from paging transmitter 13 through antenna 20. The TOA center 10 is positioned at a fixed location in which the distance from the paging transmitter tower 13 and the TOA center 10 is known and therefore the exact propagation delay of the signals is also known. From this known propagation delay, the TOA center 10 calculates the exact time of transmission from the exact time of reception. TOA center 10 then assembles the next time-of-day message packet and places the exact time of transmission of the previous time-of-day message into the current time-of-day message packet and sends it to paging terminal 12 (col. 5, lines 8 to 30).

That is, in Yokev, the transmission time is calculated from the propagation delay, which is known from the fixed distance between devices. In other words, Yokev teaches that in the case when the receivers are located at a fixed location, the time-of-day information may be accurately calculated at the receiving site by adjusting the known propagation delay between the receiver and the paging transmitter (col. 4, lines 44 to 48). Since the distance between the receiving device and the transmitting device is known, the time-of-day information can be adjusted accordingly. Yokev, however, fails to teach or suggest adjusting the time of day

information by the processing time within a device, which vary, *e.g.*, depending on the traffic load that needs to be processed in the device. In Yokev, the time-of-day information is adjusted by the transmission time and not by the time spent in the receiving unit, *i.e.*, processing time from the reception to the transmission.

Therefore, “a processing time in the first communicating device...the processing time comprises a lapsed period of time from a moment when the first communicating device received the time information to a moment when the first communicating device is ready to transmit the received time information,” as set forth in claim 17 is not disclosed by Yokev, which lacks adjusting the time-of-day information by the processing time, the time spent in the communicating device. For at least this exemplary reason, Applicant respectfully submits that claim 17 is patentably distinguishable from Yokev. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 17. Claim 18 is patentable at least by virtue of its dependency on claim 17.

Claim Rejections under 35 U.S.C. § 103

Claims 1-3 5, 6, and 9-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Witsaman in view of Yokev, claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Witsaman in view of U.S. Patent No. 6,542,754 to Sayers et al (hereinafter “Sayers”), and claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Witsaman in view of Yokev and U.S. Publication No. 2002/0007453 to Nemovicher (hereinafter “Nemovicher”). Applicant respectfully traverses these rejections and respectfully requests the Examiner to reconsider these rejections in view of the comments, which follow.

Claims 1-3, 5, 6, and 9-12

Of these claims, only claims 1 and 13 are independent. Independent claim 1 recites a unique combination of features including “a receiving means for receiving information comprising a first time information having a first time data attached with a first reliability data...wherein the second reliability data indicates a reliability of the first time information included in the second time information and the second reliability data is calculated in a device transmitting the information.” The Examiner asserts that claim 1 is directed to a network system connecting plural information communicating devices for communicating information to each other through a communication network, and is obvious in view of Witsaman and Yokev.

The Examiner acknowledges that Witsaman does not teach or suggest transmitting first time information with a second reliability data attached, wherein the second reliability data indicates a reliability of the first time information. The Examiner, however, alleges that Yokev cures the deficient teachings of Witsaman, and that one of ordinary skill in the art would have been motivated to combine the two references (page 4 of the Office Action). Applicant respectfully disagrees. Applicant has carefully studied Yokev’s discussion of distributing accurate time-of-day information, which are not similar to receiving time data with a first reliability data and transmitting the time data with a second reliability data attached, as set forth in claim 1.

Yokev only teaches a TOA center, which determines the exact reception time of the time-of-day information and calculates the exact transmission time from the propagation delay, which is known from the fixed distance between the transmitter and the TOA center (col. 5, lines 16 to 21; col. 6, lines 5 to 11). That is, Yokev does not receive the exact distance between the

transmitter and the TOA but rather it is stored in the TOA center. In short, in Yokev, there is only one time, *i.e.*, transmission time calculated from the reception time. Yokev, however, fails to teach or suggest having a first and a second reliability data. After the transmission time is calculated in the TOA center, it is simply transmitted to the devices. In other words, Yokev does not teach or suggest having two reliability data, where a device receives one reliability data and based on that data calculates a second reliability data for the transmission.

Therefore, “a receiving means for receiving information comprising a first time information having a first time data attached with a first reliability data...wherein the second reliability data indicates a reliability of the first time information included in the second time information and the second reliability data is calculated in a device transmitting the information,” as set forth in claim 1 is not taught or suggest by the combined teachings of Witsaman and Yokev, which lack receiving time data with reliability data and transmitting the time data with another reliability data attached. For at least this exemplary reason, Applicant respectfully submits that independent claim 1 is patentable over the combined teachings of Witsaman and Yokev. Applicant therefore respectfully requests the Examiner to withdraw this rejection of independent claim 1. Also, Applicant respectfully submits that claims 2-3, 5, 6, and 9-12 are patentable at least by virtue of their dependency.

In addition, dependent claim 9 recites “wherein said second reliability data attached to said first time information is based on a processing time required from receiving to transmitting in the transmitting information communicating device.” The Examiner alleges that Witsaman at col. 7, lines 2 to 17 teach these features. Col. 7, lines 2 to 17 recite:

The initial synchronization and subsequent advancement of the counter 52 are controlled by the time counter controller 54. The time counter controller 54 includes a central processing unit 64, such as a Motorola 68302 32-bit microprocessor, along with associated memory circuits, that compares the elapsed-time record of counter 52 with the reference time obtained from an external source. As a result of this comparison, the central processing unit 64 will reset the counter 52 elapsed time so that it is in synchronization with the reference time. The central processing unit 64 also controls the frequency of the output signal of a voltage-controlled oscillator (VCO) 66; this is the signal that is used to establish the clocking signal that is applied to the counter 52, emphasis added.

In other words, the above cited passage only teaches correcting the internal time based on the reference signal received, and adjusting the frequency of the internal counter based on the correction made. Clearly, this passage from Witsaman, cited above, fails to teach or suggest taking into account the processing time from the receiving stage to the transmitting stage, for example. Yokey fails to cure the deficient teachings of Witsaman, as explained above with respect to claim 17. For at least this additional reason, dependent claim 9 is patentable over the combined teachings of Witsaman and Yokey.

Claims 13 and 14

Next, Applicant respectfully traverses this rejection with respect to claim 13, which recites a unique combination of features including “a receiving means for receiving information comprising a first time information having a first time data attached with a first reliability data...wherein the second reliability data indicates a reliability of the first time information included in the second time information and the second reliability is calculated based on a device

transmitting the information.” These unique features of claim 13 are similar to the features argued above with respect to claim 1. Consequently, arguments submitted with respect to claim 1 are respectfully submitted to apply with equal force here. For at least substantially analogous reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of the independent claim 13 and its dependent claim 14.

In addition, claim 13 as now amended, recites: “wherein the second reliability data comprises time required from the reception of the data to the transmission of the data in the device transmitting the information.” As explained in greater detail above, Yokev does not teach or suggest taking into account the processing time within a device. Yokev considers the transmission time, time between the devices based on the fixed distance and not the processing time. For at least this addition reason, claim 13 is patentable over the combined teachings of Witsaman and Yokev.

Claim 4

Next, Applicant addresses the rejection of claim 4, which is allegedly unpatentable over Witsaman and Yokev and further in view of Sayers. Applicant respectfully traverses this rejection with respect to the dependent upon claim 1, claim 4. Applicant has already demonstrated that the combined teachings of Witsaman and Yokev do not meet all the requirements of independent claim 1. Sayers is relied upon only for its teaching of a communication network being an internet. Clearly, Sayers does not compensate for the above-identified deficiencies of Witsaman and Yokev. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved

the subject matter of claim 1. Since claim 4 depends upon claim 1, it may be patentable at least by virtue of its dependency.

Claims 7 and 8

Finally, claims 7 and 8 are rejected as being unpatentable over Witsaman and Yokey and further in view of Nemovicher. Applicant respectfully traverses this rejection with respect to the dependent upon claim 1, claims 7 and 8. Applicant has already demonstrated that the combined teachings of Witsaman and Yokey do not meet all the requirements of independent claim 1. Nemovicher is relied upon only for its teaching of transmission via email and as such clearly fails to compensate for the above-identified deficiencies of Witsaman and Yokey. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 1. Since claims 7 and 8 dependent upon claim 1, they may be patentable at least by virtue of their dependency.

In addition, with respect to the dependent claim 7, the Examiner alleges that Nemovicher teaches information time being transmitted via E-mail as required in the dependent claim 7 (see pages 5-6 of the Office Action). Applicant respectfully disagrees. Applicant has carefully studied Nemovicher's teachings of the secure electronic mail system, which only mentions a clock approximately three times throughout the lengthy discussion, and respectfully submits that Nemovicher does not teach or suggest transmitting time information via E-mail. Nemovicher teaches placing a time stamp on an email, which is driven by an atomic clock, which receives its time from a satellite and is thus very accurate (§ 57). To be exact, § 57 of Nemovicher recites:

Once a secure e-mail is received by secure mail server 80, the message is time and date stamped.

Time and date stamping provides the message with an indication of the time and date received by secure mail server 80. Time and date functions with regard to stamping are assisted and processed by synchronization with, for example, atomic clocks providing synchronization signals through satellite communications.

In short, Nemovicher teaches time stamping each email and not transmitting second time information in an E-mail from said transmitting means, as recited in claim 7. Moreover, one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner. One of ordinary skill in the art would never have turned to Nemovicher, which is from a different field of endeavor, *e.g.*, see its classification, and which addresses a different problem of transferring email messages with virus checking and high level of privacy between two computers (¶¶ 7-8 and 18-19). Therefore, Witsaman, Yokev, and Nemovicher cannot be validly combined with each other in a rejection under 35 U.S.C. § 103(a). For at least this additional reason, dependent claim 7 is patentable over the combined teachings of Witsaman, Yokev, and Nemovicher.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/859,459

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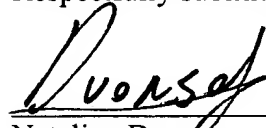
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Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Dvorzon', is written over a horizontal line.

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